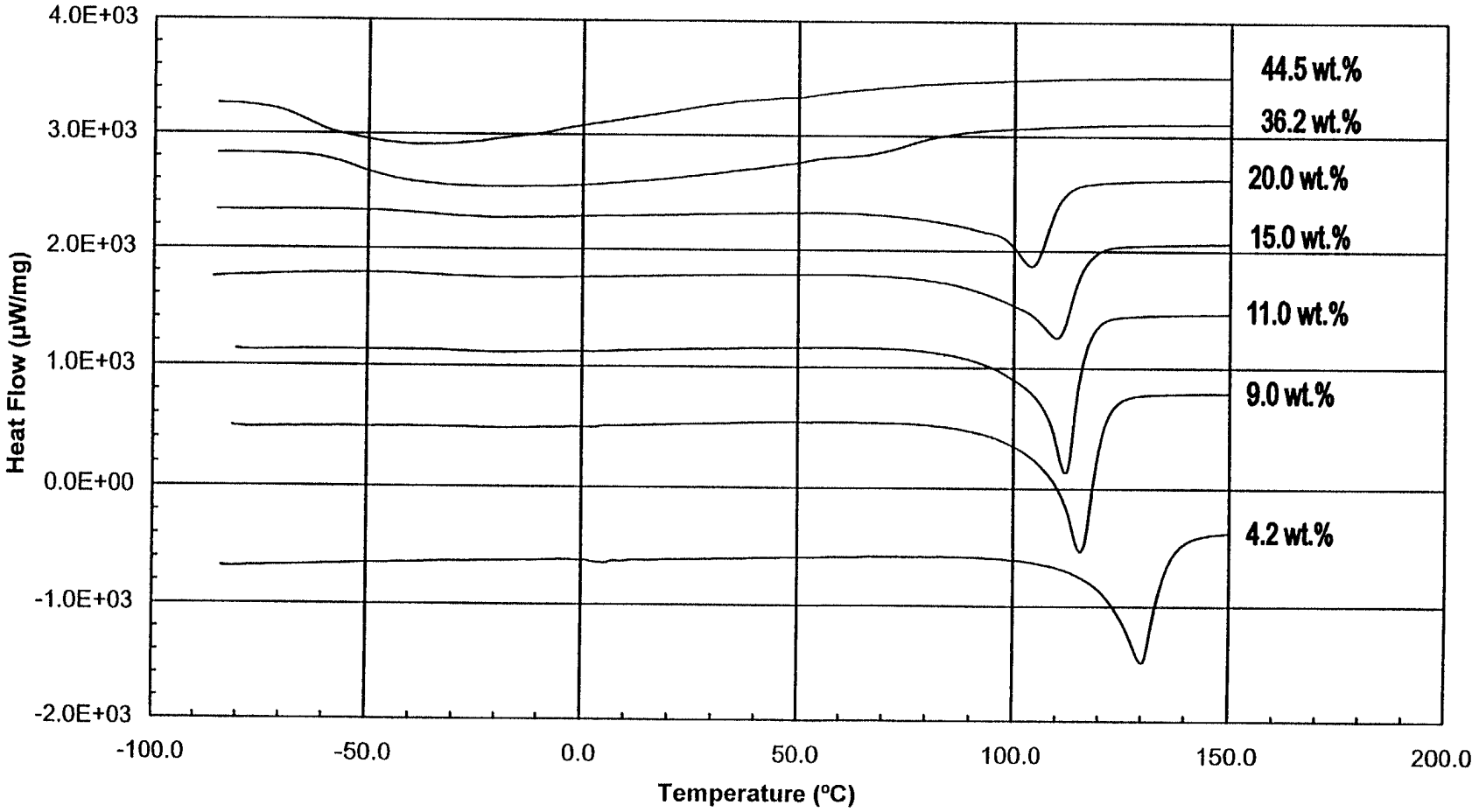

4.0E+03
3.0E+03
2.0E+03
1.0E+03
0.0E+00
-1.0E+03
-2.0E+03
Heat Flow (μW/mg)
-100.0
-50.0
0.0
50.0
100.0
150.0
200.0
Temperature (°C)
44.5 wt.%
36.2 wt.%
20.0 wt.%
15.0 wt.%
11.0 wt.%
9.0 wt.%
4.2 wt.%

FIG. 1

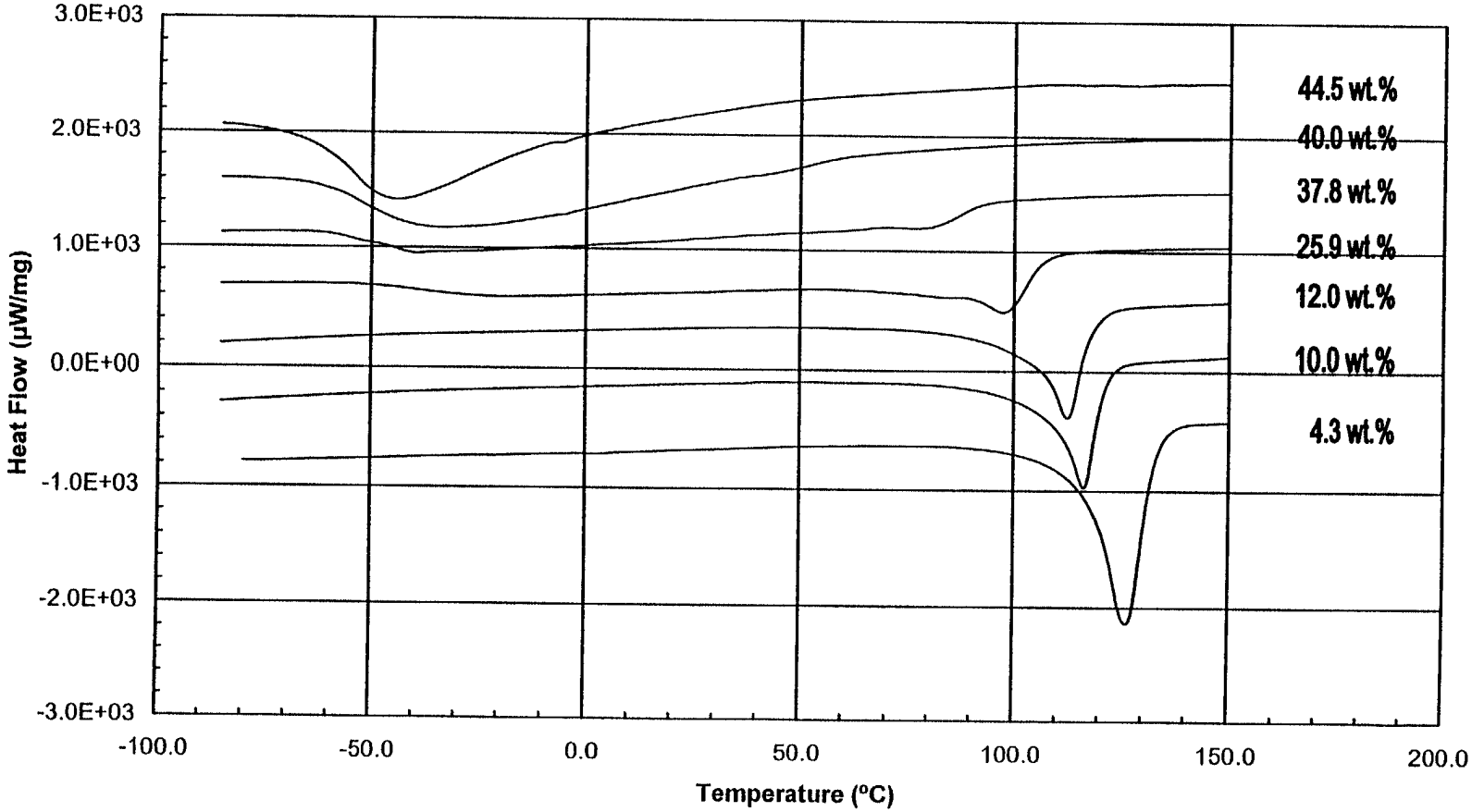

3.0E+03
2.0E+03
1.0E+03
0.0E+00
-1.0E+03
-2.0E+03
-3.0E+03
Heat Flow (µW/mg)
-100.0
-50.0
0.0
50.0
100.0
150.0
200.0
Temperature (°C)
44.5 wt.%
40.0 wt.%
37.8 wt.%
25.9 wt.%
12.0 wt.%
10.0 wt.%
4.3 wt.%

FIG. 2

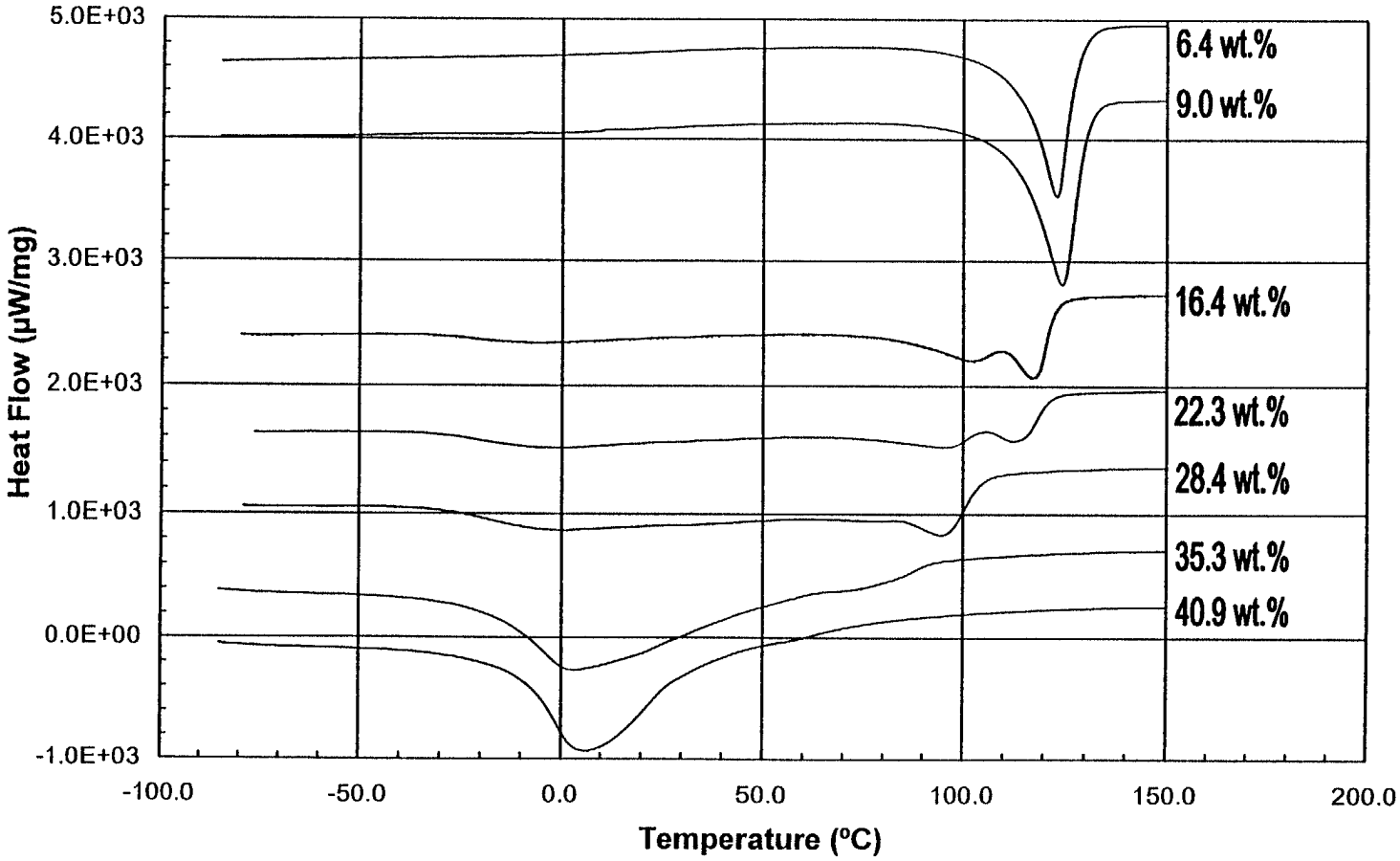

5.0E+03
4.0E+03
3.0E+03
2.0E+03
1.0E+03
0.0E+00
-1.0E+03
Heat Flow (μW/mg)
-100.0
-50.0
0.0
50.0
100.0
150.0
200.0
Temperature (°C)
6.4 wt.%
9.0 wt.%
16.4 wt.%
22.3 wt.%
28.4 wt.%
35.3 wt.%
40.9 wt.%

FIG. 3

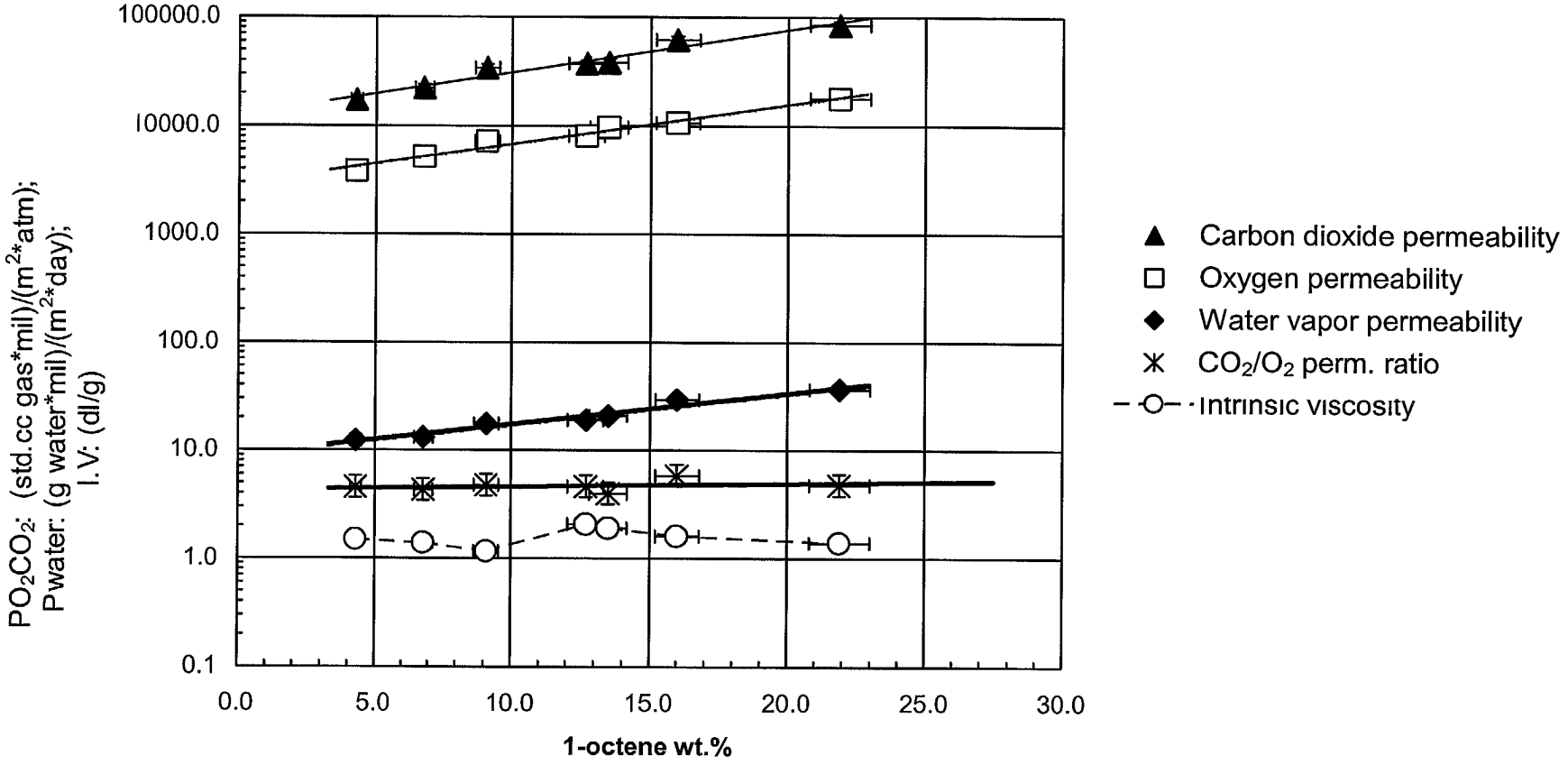

100000.0
10000.0
1000.0
100.0
10.0
1.0
0.1
0.0
5.0
10.0
15.0
20.0
25.0
30.0
1-octene wt.%
PO2CO2: (std.cc gas*mil)/(m2*atm);
Pwater: (g water*mil)/(m2*day);
I.V: (dl/g)
Carbon dioxide permeability
Oxygen permeability
Water vapor permeability
CO2/O2 perm. ratio
Intrinsic viscosity

FIG. 4

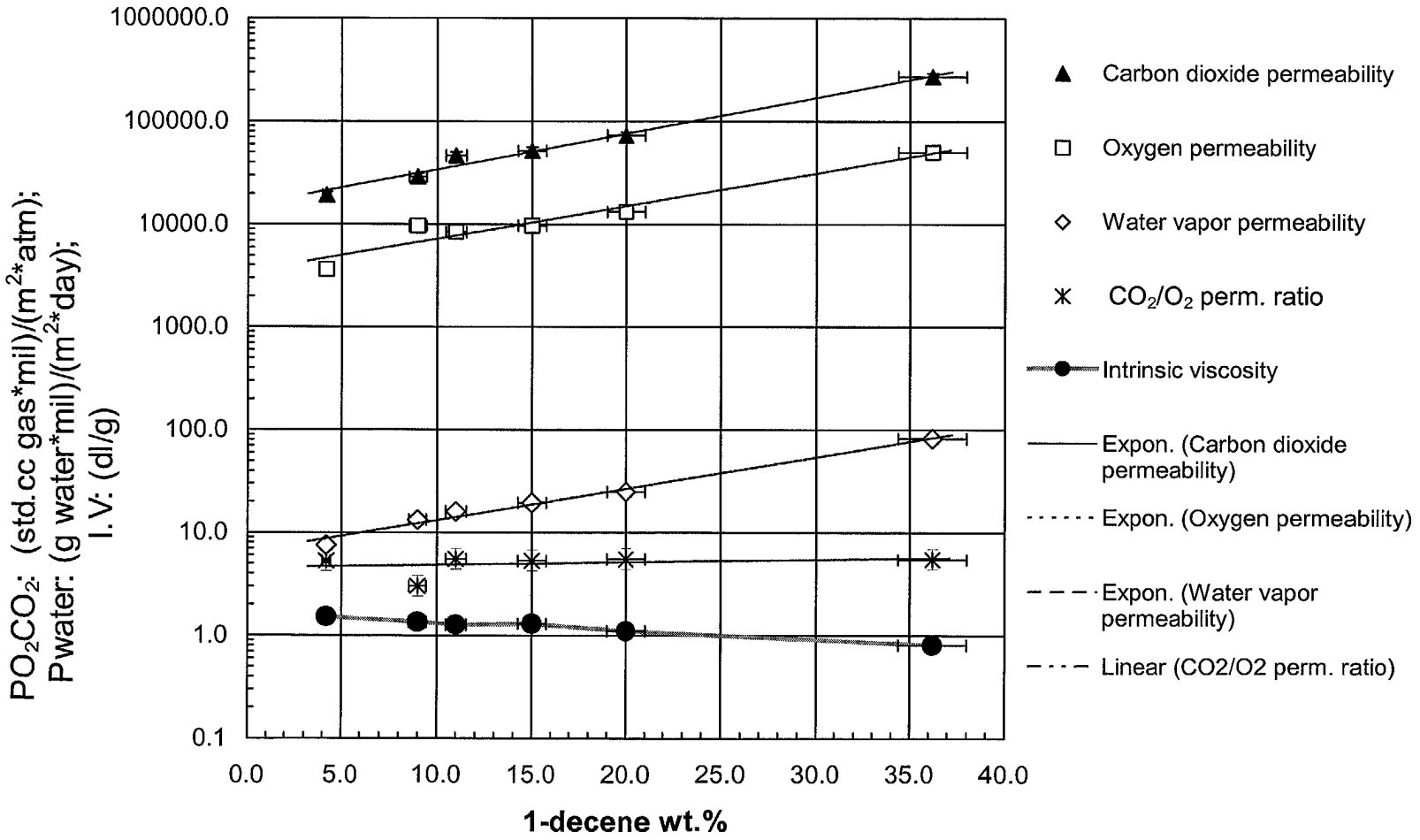

1000000.0
100000.0
10000.0
1000.0
100.0
10.0
1.0
0.1
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
40.0
1-decene wt.%
PO2CO2: (std.cc gas*mil)/(m2*atm);
Pwater: (g water*mil)/(m2*day);
I.V: (dl/g)
Carbon dioxide permeability
Oxygen permeability
Water vapor permeability
CO2/O2 perm. ratio
Intrinsic viscosity
Expon. (Carbon dioxide permeability)
Expon. (Oxygen permeability)
Expon. (Water vapor permeability)
Linear (CO2/O2 perm. ratio)

FIG. 5

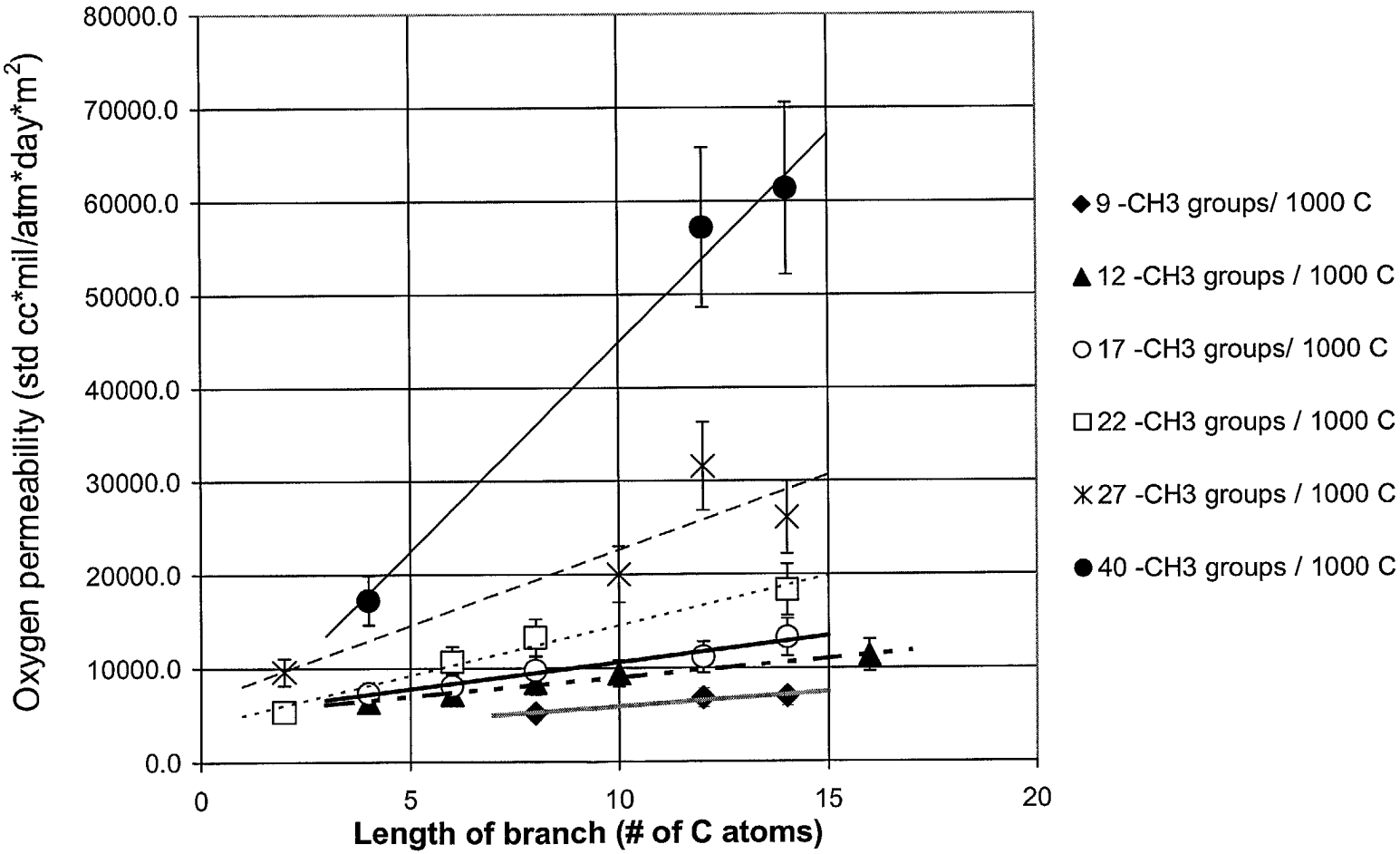

Oxygen permeability (std cc*mil/atm*day*m2)
80000.0
70000.0
60000.0
50000.0
40000.0
30000.0
20000.0
10000.0
0.0
0
5
10
15
20
Length of branch (# of C atoms)
9 -CH3 groups/ 1000 C
12 -CH3 groups / 1000 C
17 -CH3 groups/ 1000 C
22 -CH3 groups / 1000 C
27 -CH3 groups / 1000 C
40 -CH3 groups / 1000 C

FIG. 6

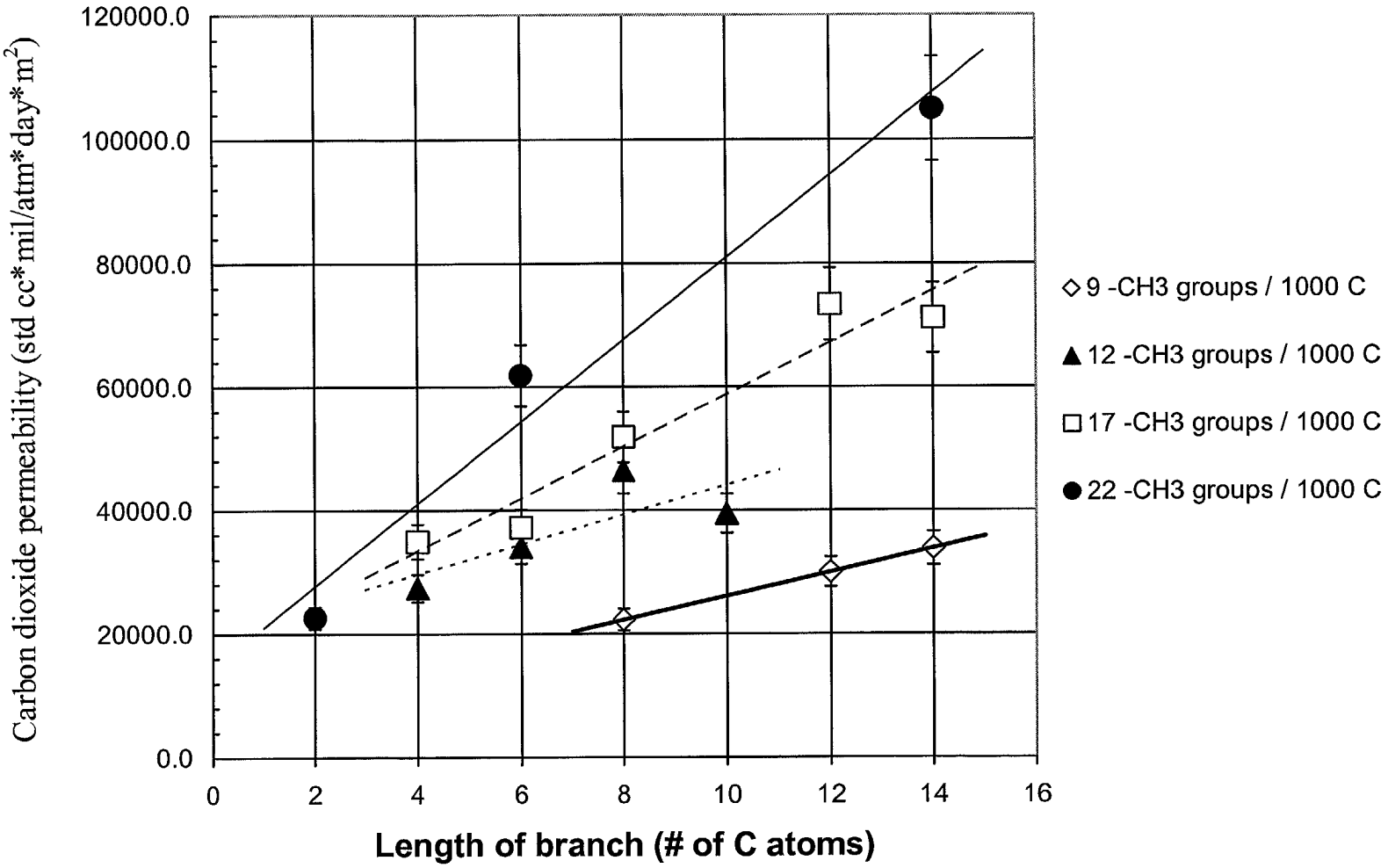

Carbon dioxide permeability (std cc*mil/atm*day*m2)
120000.0
100000.0
80000.0
60000.0
40000.0
20000.0
0.0
0
2
4
6
8
10
12
14
16
Length of branch (# of C atoms)
◇ 9 -CH3 groups / 1000 C
▲ 12 -CH3 groups / 1000 C
□ 17 -CH3 groups / 1000 C
● 22 -CH3 groups / 1000 C

FIG. 7

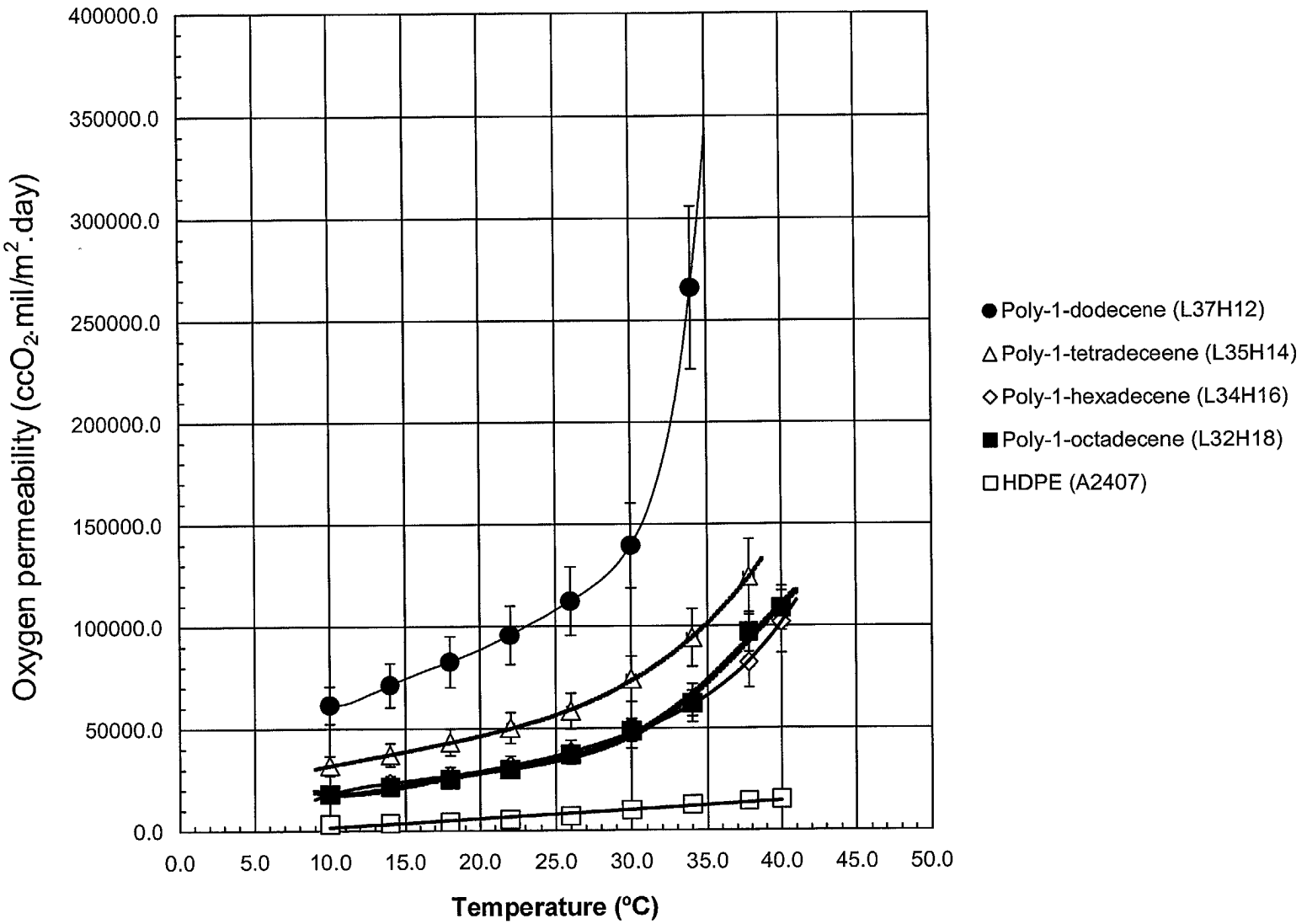

400000.0
350000.0
300000.0
250000.0
200000.0
150000.0
100000.0
50000.0
0.0
Oxygen permeability (ccO2.mil/m2.day)
0.0
5.0
10.0
15.0
20.0
25.0
30.0
35.0
40.0
45.0
50.0
Temperature (°C)
Poly-1-dodecene (L37H12)
Poly-1-tetradeceene (L35H14)
Poly-1-hexadecene (L34H16)
Poly-1-octadecene (L32H18)
HDPE (A2407)

FIG. 8